In the Claims:

Please cancel claims 2 and 3 without prejudice, amend claims 1 and 4, and add new claims 20-52 as follows:

<u>Clean Version of the Amended and New Claims</u>

1. A modem comprising at least one physical channel for transmitting data from a source to a receiver, said physical channel having a first logical channel and a second logical channel, wherein:

said first logical channel is configured to transmit only command information from the source to the modem for controlling the modem; and

said second logical channel is configured to transmit data from the source to the receiver through the modem.

4. A communication method for use by a modem, said method comprising the steps of:

receiving message information via a first logical channel;

receiving command information via a second logical channel, wherein said first and second logical channels are a part of a single physical channel;

transferring said message information received via said first logical channel to a receiver;

reading said command information received via said second logical channel; and

executing said command information.

20. A communication device capable of communicating information with a host via a host interface, said information including command information and data information, said device comprising:

a controller in communication with said host interface for receiving said information from said host;

a physical channel interface including a data pump; and

97RSS327

a physical channel in communication with said controller and said physical channel interface, said physical channel including a logical command channel and a logical data channel;

wherein said controller provides said command information to said physical channel interface via said logical command channel and provides said data information to said physical channel interface via said logical data channel.

21.   The device of claim 20, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to said physical channel interface; and

a mailbox for use in conjunction with said transmit buffer to distinguish between said command information and said data information in said transmit buffer;

wherein said transmit buffer and said mailbox are in communication with said host interface.

22.   The device of claim 21, wherein said controller further comprises:

a receive buffer capable of receiving and buffering data from said physical channel interface via said physical channel.

(New) The device of claim 21, wherein said mailbox comprises:

a of receive register; and

a of transmit register;

wherein said controller writes first data to said receive register and reads second data from transmit register, and wherein said host writes said second data to said transmit register and reads said first data from receive register.

24.   The device of claim 23, wherein said first and second data indicate an information type.

25.   The device of claim 24, wherein said information type includes a message information type, a command information type and a data information type.

26.   The device of claim 23, wherein said first and second data indicate a logical channel type.

27.   The device of claim 26, wherein said logical channel type includes a logical command channel type and logical data channel type.

28.   The device of claim 20, wherein said host interface includes a plurality of bi-directional data line, a plurality of address lines, a plurality of control lines and a plurality of status lines.

29.   The device of claim 20, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to said physical channel interface; and

a credit counter for use to control information flow from said host.

30.   The device of claim 29, wherein said credit counter indicates a number of bytes that can be received from said host.

31.   A communication device capable of communicating information with a host via a host interface, said information including command information and data information, said device comprising:

a controller in communication with said host interface for receiving said information from said host;

a plurality of physical channel interfaces, each of said plurality of physical channel interfaces including a data pump; and

a plurality of physical channels, wherein said controller is in communication with each of said physical channel interfaces via at least one of said plurality of physical channels, and wherein at least one of said plurality of physical channels includes a logical command channel and a logical data channel;

wherein said controller provides said command information to said at least one of said

97RSS327

plurality of physical channel interfaces via said logical command channel and provides said data information to said at least one of said plurality of physical channel interfaces via said logical data channel.

32.   The device of claim 31, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to one of said plurality of physical channel interfaces; and

a mailbox for use in conjunction with said transmit buffer to distinguish between said command information and said data information in said transmit buffer designate for each of said plurality of physical channel interfaces;

wherein said transmit buffer and said mailbox are in communication with said host interface.

33.   The device of claim 32, wherein said controller further comprises:

a receive buffer capable of receiving and buffering data from said plurality of physical channel interfaces via said plurality of physical channels.

34.   The device of claim 32, wherein said mailbox comprises:

a of receive register; and

a of transmit register;

wherein said controller writes first data to said receive register and reads second data from transmit register, and wherein said host writes said second data to said transmit register and reads said first data from receive register.

35.   The device of claim 34, wherein said first and second data indicate an information type.

36.   The device of claim 35, wherein said information type includes a message information type, a command information type and a data information type.

37. The device of claim 34, wherein said first and second data indicate a physical channel number and a logical channel type.

38. The device of claim 37, wherein said physical channel number indicates one of said plurality of physical channels and said logical channel type includes a logical command channel type and logical data channel type.

39. The device of claim 31, wherein said host interface includes a plurality of bi-directional data line, a plurality of address lines, a plurality of control lines and a plurality of status lines.

40. The device of claim 31, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to said plurality of physical channel interfaces; and

a credit counter for use to control information flow from said host.

41. The device of claim 40, wherein said credit counter indicates a number of bytes that can be received from said host.

42. A method of communicating information between a communication device and a host via a host interface, said device including a controller in communication with said host interface and a physical channel, wherein said physical channel is in communication with a physical channel interface having a data pump, and said information including command information and data information, said method comprising:

defining a logical command channel in said physical channel;

defining a logical data channel in said physical channel;

providing said command information to said physical channel interface via said logical command channel; and

providing said data information to said physical channel interface via said logical data channel.

97RSS327

43. The method of claim 42 further comprising:

buffering said information in transmit buffer prior to providing said information to said physical channel interface; and

distinguishing between said command information and said data information in said transmit buffer.

44. The method of claim 43 further comprising:

receiving data from said physical channel interface via said physical channel; and

buffering said data in a receive buffer.

45. The method of claim 43, wherein said distinguishing is performed using a mailbox, said mailbox comprises:

a of receive register; and

a of transmit register;

wherein said controller writes first data to said receive register and reads second data from transmit register, and wherein said host writes said second data to said transmit register and reads said first data from receive register.

46. The method of claim 45, wherein said first and second data indicate an information type.

47. The method of claim 46, wherein said information type includes a message information type, a command information type and a data information type.

48. The method of claim 47, wherein said first and second data indicate a logical channel type.

49. The method of claim 48, wherein said logical channel type includes a logical command channel type and logical data channel type.

97RSS327

50.   The method of claim 42, wherein said host interface includes a plurality of bi-directional data line, a plurality of address lines, a plurality of control lines and a plurality of status lines.

51.   The method of claim 42 further comprising:

buffering said information in a transmit buffer prior to providing said information to said physical channel interface; and

updating a credit counter for controlling information flow from said host.

52.   The method of claim 51, wherein said credit counter indicates a number of bytes that can be received from said host.

97RSS327

Marked-Up Version of the Amended and New Claims

1.   (Amended)   A modem comprising at least one physical channel for transmitting data from a source to a receiver, said physical channel ~~transmitting~~ having a first logical channel and a second logical channel, wherein:

said first logical channel is configured to transmit only command information from the source to the modem for controlling the modem; and

said second logical channel is configured to transmit data from the source to the receiver through the modem.

4.   (Amended)   A communication method ~~of communicating information via~~ for use by a modem, said method comprising the steps of:

~~transmitting~~ receiving message information ~~to the modem~~ via a first logical channel;

~~transmitting~~ receiving command information ~~to the modem~~ via a second logical channel, wherein said first and second logical channels are ~~transmitted via only one~~ a part of a single physical channel;

transferring said message information received via said first logical channel to a receiver;

reading said command information received via said second logical channel; and

executing ~~commands at said modem according to~~ said ~~read~~ command information.

20.   (New) A communication device capable of communicating information with a host via a host interface, said information including command information and data information, said device comprising:

a controller in communication with said host interface for receiving said information from said host;

a physical channel interface including a data pump; and

a physical channel in communication with said controller and said physical channel interface, said physical channel including a logical command channel and a logical data channel;

97RSS327

wherein said controller provides said command information to said physical channel interface via said logical command channel and provides said data information to said physical channel interface via said logical data channel.

21. (New) The device of claim 20, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to said physical channel interface; and

a mailbox for use in conjunction with said transmit buffer to distinguish between said command information and said data information in said transmit buffer;

wherein said transmit buffer and said mailbox are in communication with said host interface.

22. (New) The device of claim 21, wherein said controller further comprises:

a receive buffer capable of receiving and buffering data from said physical channel interface via said physical channel.

24. (New) The device of claim 21, wherein said mailbox comprises:

a of receive register; and

a of transmit register;

wherein said controller writes first data to said receive register and reads second data from transmit register, and wherein said host writes said second data to said transmit register and reads said first data from receive register.

24. (New) The device of claim 23, wherein said first and second data indicate an information type.

25. (New) The device of claim 24, wherein said information type includes a message information type, a command information type and a data information type.

26. (New) The device of claim 23, wherein said first and second data indicate a logical channel type.

97RSS327

27.   (New) The device of claim 26, wherein said logical channel type includes a logical command channel type and logical data channel type.

28.   (New) The device of claim 20, wherein said host interface includes a plurality of bi-directional data line, a plurality of address lines, a plurality of control lines and a plurality of status lines.

29.   (New) The device of claim 20, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to said physical channel interface; and

a credit counter for use to control information flow from said host.

30.   (New) The device of claim 29, wherein said credit counter indicates a number of bytes that can be received from said host.

31.   (New) A communication device capable of communicating information with a host via a host interface, said information including command information and data information, said device comprising:

a controller in communication with said host interface for receiving said information from said host;

a plurality of physical channel interfaces, each of said plurality of physical channel interfaces including a data pump; and

a plurality of physical channels, wherein said controller is in communication with each of said physical channel interfaces via at least one of said plurality of physical channels, and wherein at least one of said plurality of physical channels includes a logical command channel and a logical data channel;

wherein said controller provides said command information to said at least one of said plurality of physical channel interfaces via said logical command channel and provides said data information to said at least one of said plurality of physical channel interfaces via said logical

data channel.

32.   (New) The device of claim 31, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to one of said plurality of physical channel interfaces; and

a mailbox for use in conjunction with said transmit buffer to distinguish between said command information and said data information in said transmit buffer designate for each of said plurality of physical channel interfaces;

wherein said transmit buffer and said mailbox are in communication with said host interface.

33.   (New) The device of claim 32, wherein said controller further comprises:

a receive buffer capable of receiving and buffering data from said plurality of physical channel interfaces via said plurality of physical channels.

34.   (New) The device of claim 32, wherein said mailbox comprises:

a of receive register; and

a of transmit register;

wherein said controller writes first data to said receive register and reads second data from transmit register, and wherein said host writes said second data to said transmit register and reads said first data from receive register.

35.   (New) The device of claim 34, wherein said first and second data indicate an information type.

36.   (New) The device of claim 35, wherein said information type includes a message information type, a command information type and a data information type.

37.   (New) The device of claim 34, wherein said first and second data indicate a physical channel number and a logical channel type.

97RSS327

38.   (New) The device of claim 37, wherein said physical channel number indicates one of said plurality of physical channels and said logical channel type includes a logical command channel type and logical data channel type.

39.   (New) The device of claim 31, wherein said host interface includes a plurality of bi-directional data line, a plurality of address lines, a plurality of control lines and a plurality of status lines.

40.   (New) The device of claim 31, wherein said controller comprises:

a transmit buffer capable of buffering said information prior to providing said information to said plurality of physical channel interfaces; and

a credit counter for use to control information flow from said host.

41.   (New) The device of claim 40, wherein said credit counter indicates a number of bytes that can be received from said host.

42.   (New) A method of communicating information between a communication device and a host via a host interface, said device including a controller in communication with said host interface and a physical channel, wherein said physical channel is in communication with a physical channel interface having a data pump, and said information including command information and data information, said method comprising:

defining a logical command channel in said physical channel;

defining a logical data channel in said physical channel;

providing said command information to said physical channel interface via said logical command channel; and

providing said data information to said physical channel interface via said logical data channel.

43.   (New) The method of claim 42 further comprising:

97RSS327

buffering said information in transmit buffer prior to providing said information to said physical channel interface; and

distinguishing between said command information and said data information in said transmit buffer.

44. (New) The method of claim 43 further comprising:

receiving data from said physical channel interface via said physical channel; and

buffering said data in a receive buffer.

45. (New) The method of claim 43, wherein said distinguishing is performed using a mailbox, said mailbox comprises:

a of receive register; and

a of transmit register;

wherein said controller writes first data to said receive register and reads second data from transmit register, and wherein said host writes said second data to said transmit register and reads said first data from receive register.

46. (New) The method of claim 45, wherein said first and second data indicate an information type.

47. (New) The method of claim 46, wherein said information type includes a message information type, a command information type and a data information type.

48. (New) The method of claim 47, wherein said first and second data indicate a logical channel type.

49. (New) The method of claim 48, wherein said logical channel type includes a logical command channel type and logical data channel type.

50. (New) The method of claim 42, wherein said host interface includes a plurality of bi-directional data line, a plurality of address lines, a plurality of control lines and a plurality of status lines.

97RSS327

51.   (New) The method of claim 42 further comprising:

buffering said information in a transmit buffer prior to providing said information to said physical channel interface; and

updating a credit counter for controlling information flow from said host.

52.   (New) The method of claim 51, wherein said credit counter indicates a number of bytes that can be received from said host.

97RSS327